GOVERNMENT OF INDIA
HEALTH AND FAMILY WELFARE
LOK SABHA

UNSTARRED QUESTION NO:3210
ANSWERED ON:12.03.2003
BREAKTHROUGH IN DIABETES TREATMENT
CHANDRA BHUSHAN SINGH

Will the Minister of HEALTH AND FAMILY WELFARE be pleased to state:

(a) whether the scientists have identified a saturated fat by-product as a potential contributor to the development of type-II diabetes as reported in The Hindu dated January 29, 2003;

(b) if so, whether the breakthrough has the potential to lead to novel treatments for diabetes; and

(c) if so, the details thereof?

Answer

THE MINISTER OF STATE IN THE MINISTRY OF HEALTH AND FAMILY WELARE (SHRI A. RAJA)

(a) to (c) According to the Indian Council of Medical Research, the scientists of Colorado State University, U.S.A. have not identified a Saturated Fat by product as a potential contributor to the development of Type II Diabetes, but only reported to have established the Bio-Chemical Mechanism of how Saturated Fatty Acids inhibit Insulin Signaling. They observed that the Saturated Fatty Acids result in the accumulation of Ceramide which inhibits Insulin Signaling in Cultured Muscle Cells. Thus the findings, at best, point out towards the role of Ceramide in inducing Saturated Fatty Acids - Mediated Insulin Resistance.Indian Council of Medical Research says that it is premature to make positive claims on the findings for treatment of Diabetic patients in India and further research is required to establish the role of Ceramide as a sole contributor in Insulin resistance.